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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,533	10/24/2006	Thomas McGee	102790-171 (30115 US2)	2404
27389	7590	12/29/2009	EXAMINER	
PARFOMAK, ANDREW N.			CONLEY, SEAN EVERETT	
NORRIS MC LAUGHLIN & MARCUS PA			ART UNIT	PAPER NUMBER
875 THIRD AVE, 8TH FLOOR			1797	
NEW YORK, NY 10022				

  

MAIL DATE	DELIVERY MODE
12/29/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/597,533	MCGEE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	SEAN E. CONLEY	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 7/28/2006 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \*    c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____ .                                     |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ .   | 6) <input type="checkbox"/> Other: ____ .                         |

## DETAILED ACTION

### ***Claim Objections***

1. Claim 11 is objected to because of the following informalities: Claim 11 depends from claim 11. It appears that claim 11 should depend from claim 1 and will be treated as such for examination. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Cirillo et al (U.S. Patent No. 5,676,913).

Regarding claims 1 and 11-12, Cirillo et al disclose a method and apparatus adapted to both purify an air flow passing through it and disseminate a volatile liquid therein, comprising a source of volatile liquid (13), a disseminating element (nozzles 11) for the liquid and a catalyst (9) located in oxidation section (9) adapted to remove pollutants at relatively low temperatures, the aforementioned elements being arranged such that the air flow encounters first the catalyst (9) and then the disseminating element (nozzles 11) (see figures 2-3; see col. 3, line 28 to col. 5, line 20). The

apparatus (2) is capable of being removed and replaced from the vehicle (1) (see figure 1; see col. 3, line 10-26).

Regarding claim 2, Cirillo et al discloses a fan (4) for producing air flow (see figs. 2-3; see col. 3, lines 28-31).

Regarding claim 3, Cirillo et al disclose that the fan (4) can be positioned downstream of the oxidation section (5) without altering the process (see col. 3, lines 39-42). Therefore, in the above configuration, the fan (4) draws the air flow over the catalyst (oxidation section 5) and then blows the air over the disseminating element (11) (see fig. 2-3).

Regarding claims 4-8, Cirillo et al discloses that the catalyst comprises iron oxide and platinum both being support on alumina (see col. 4, lines 11-30). Furthermore, the catalyst may be heated by a supplementary heat source when the room temperature sinks below the value required for optimum efficiency (see col. 4, lines 33-46).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cirillo et al as applied to claim 7 above, and further in view of Entwistle et al. (GB 2114409 A).

Cirillo et al. is set forth above and uses heat from the exhaust pipe of the vehicle to heat the catalyst filter but does not appear to disclose a heater is a flexible printed resistor wrapped around the catalyst monolith.

Entwistle et al. disclose a flexible printed resistor heater that is wrapped around the fuel filter of an automobile in order to heat the filter in cold weather conditions (see figures 1-2; see page 1, lines 57-102).

Therefore, since both Cirillo et al. and Entwistle et al. disclose means of heating filters (catalytic filter in Cirillo et al. and a fuel filter in Entwistle et al.) in an automobile, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one means of heating (exhaust pipe heat in Cirillo et al.) for the other (flexible printed resistance heater wrapped around filter in Entwistle et al.) to yield the predictable result of heating the filter element.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cirillo et al as applied to claim 1 above, and further in view of Fornai et al. (U.S. Patent No. 6,843,835 B2).

Cirillo et al. is set forth above but does not appear to teach an inlet filter. Fornai et al. disclose an air cleaning apparatus for vehicles which comprises an air pre-filter at the inlet of the apparatus for removing large particulates from the air stream (see figs. 1 and 3-7; see abstract; see col. 3, lines 23-50, especially lines 46-48; see col. 4, lines 20-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Cirillo et al and include a pre-filter located at the air inlet of the apparatus, as taught by Fornai et al, in order to

remove large particles from the air stream prior to purification of the air downstream by the catalyst.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Conley whose telephone number is 571-272-8414. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 18, 2009

/Sean E Conley/  
Primary Examiner, Art Unit 1797